

LISTING OF CLAIMS

1. *(currently amended):* A method of killing melanoma cells comprising contacting said cells for an effective time with an effective amount of a composition that consists of an organic small molecule inhibitor of MAPK/ERK kinase (MEK) enzymes which inhibits
(i) is a direct, noncompetitive inhibitor of MEK which does not inhibit the binding of the enzyme to one of its substrates, adenosine triphosphate (ATP); and
(ii) induces apoptosis in said cells, thereby killing the cells;
~~wherein said inhibitor is the MAPK/ERK kinase (MEK) enzymes which inhibitor PD98059 or PD184352.~~

2. *(withdrawn)* The method of claim 1, wherein said inhibitor is a MEK-directed protease.

3. *(withdrawn)* The method of claim 2, wherein said protease is *Bacillus anthracis* lethal factor or a functional derivative thereof.

Claim 4 (CANCELED)

5. *(previously amended):* The method of claim 1 wherein said inhibitor is PD184352.

6. *(previously amended):* The method of any of claims 1 or 5, wherein said contacting is *in vivo*.

7. *(original):* The method of claim 6 wherein said killing results in measurable regression of melanoma tumor or attenuation of melanoma growth.

8. *(withdrawn)* A method of protecting against melanoma in a susceptible subject, comprising administering to said subject that is
(a) at risk for development of melanoma or,
(b) in the case of an already treated subject, at risk for recurrence of melanoma,
an effective amount of a MAPK-inhibitor.

9. (currently amended): A method of inducing an antitumor response in a mammal having melanoma, comprising administering an effective amount of a composition that consists of an organic small molecule inhibitor of MEK enzyme to said mammal, which inhibitor:

(a) ~~is a direct, noncompetitive inhibitor of MEK which does not inhibit the binding of the enzyme to one of its substrates ATP and is selected from the group consisting of PD98059 or and PD184352; and~~

~~[(b)]] wherein the composition induces apoptosis in and is cytotoxic to melanoma cells in said mammal,~~

thereby inducing an antitumor response that comprises

- (i) at least a 50% decrease in tumor size measured as the sum of the products of maximal perpendicular diameters of all measurable lesions;
- (ii) absence of new lesions, and
- (iii) lack of progression of any preexisting lesions.

10. (currently amended): The method of claim 9 wherein said antitumor response is further characterized by ~~comprises~~ the disappearance of all evidence of melanoma disease for at least one month.

11. (withdrawn) The method of claim 9, wherein said inhibitor is a MEK-directed protease.

12. (withdrawn). The method of claim 11, wherein said protease is *Bacillus anthracis* lethal factor or a functional derivative thereof.

Claim 13 (CANCELED)

14. (previously amended): The method of claim 9 wherein said inhibitor is PD184352.

15. (previously amended): The method of any of claims 9, 10 or 14, wherein said mammal is a human.

16. (currently amended): A method of inhibiting growth or recurrent growth of a melanoma tumor in a mammal having melanoma or at risk for melanoma growth or recurrence, comprising administering to said mammal an effective amount of a composition that consists of an organic small molecule inhibitor of MEK enzyme selected from the group consisting of PD98059 or and PD184352, thereby inducing a cytotoxic response leading to apoptosis of melanoma cells in said mammal, which response inhibits said growth or recurrent growth of said melanoma tumor.

17. *(withdrawn)* The method of claim 16 wherein said inhibitor is a MEK-directed protease.

18. *(withdrawn)* The method of claim 17, wherein said protease is *Bacillus anthracis* lethal factor or a functional derivative thereof.

Claim 19 [CANCELED]

20 *(previously amended)*: The method of claim 16 wherein said inhibitor is PD184352.

21 *(previously amended)*: The method of any of claims 16 or 20, wherein said mammal is a human.